

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number  
**WO 2005/008138 A1**

(51) International Patent Classification<sup>7</sup>: **F24C 15/20**

(21) International Application Number:  
PCT/KR2004/001727

(22) International Filing Date: 13 July 2004 (13.07.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2003-0049775 21 July 2003 (21.07.2003) KR  
10-2003-0051478 25 July 2003 (25.07.2003) KR

(71) Applicant (for all designated States except US): **LG ELECTRONICS, INC.** [KR/KR]; 20 Yoido-dong, Yongsungpo-gu, Seoul 150-875 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **OH, Gyu-Ho**

[KR/KR]; 7-1303 Lucky Apt., Banrim-dong, Changwon, Kyungsangnam-do 641-764 (KR). **KIM, Young-Chul** [KR/KR]; 659-8 Yooil Billa301, Poongho-dong, Jinhae, Kyungsangnam-do 645-320 (KR).

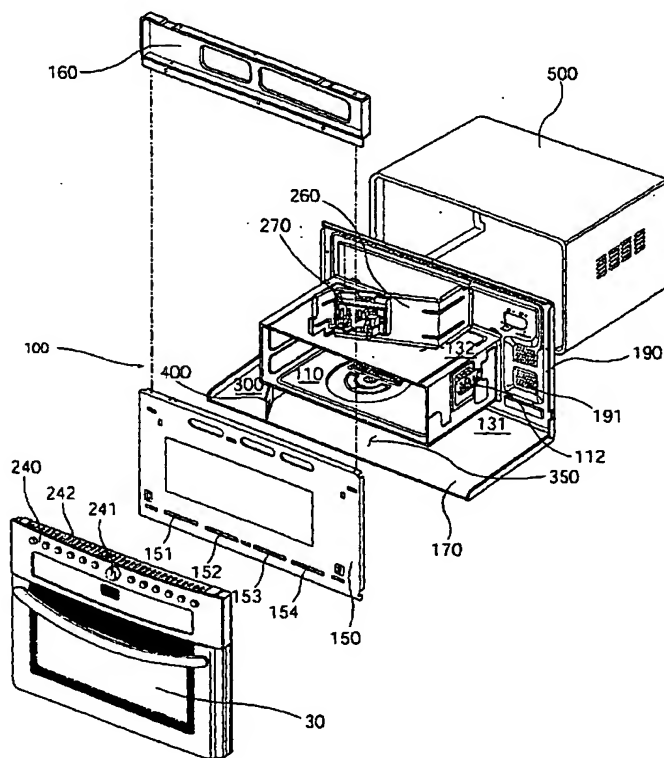
(74) Agent: **HAW, Yong-Noke**; 8th Fl. Songchon Bldg., 642-15, Yoksam-dong, Kangnam-gu, Seoul 135-080 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: **AIR FLOW SYSTEM IN OVEN**



(57) Abstract: An air flow system in oven is provided. The structure includes: a cavity for housing food; a ventilation fan provided at an electronic equipment chamber outside of the cavity; a first intake port provided at a front and upper surface of the microwave oven; a lower barrier for partitioning a lower space of the cavity; an outlet duct provided at one side of the lower barrier, for allowing a flow of hot air using the ventilation fan; an outlet space provided at the other side of the lower barrier, for exhausting an internal air of the cavity; a plurality of front outlet ports provided at a front and lower surface of the microwave oven, for exhausting hot air of the outlet duct and the outlet space; and a communication port provided at one side of the lower barrier, for communicating the outlet duct with the outlet space.

WO 2005/008138 A1



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— with international search report